



optimization simulated annealing computer

Search

[Advanced Scholar Search](#)
[Scholar Preferences](#)
[Scholar Help](#)**Scholar** Results 1 - 10 of about 39,100 for **optimization simulated annealing computer** with **Safesearch** on**Optimization by simulated annealing - group of 23 »**[All articles](#) [Recent articles](#)

S Kirkpatrick, CD Gelatt, MP Vecchi - Science, 1983 - citeseer.csail.mit.edu

... To test the power of **simulated annealing**. ... Combinatorial **Optimization** ... consists of a set of problems that are central to the disciplines of **computer science** and ...Cited by 7400 - [View as HTML](#) - [Web Search](#)[book] **Simulated annealing** and Boltzmann machines: a stochastic approach to combinatorial **optimization** and ...

E Aarts, J Korst - 1989 - John Wiley & Sons, Inc. New York, NY, USA

Cited by 502 - [Web Search](#) - [Library Search](#)**Simulated annealing: theory and applications - group of 2 »**

PJM Laarhoven, EHL Aarts - 1987 - portal.acm.org

... problems, Metaheuristics: **computer** decision-making, Kluwer Academic Publishers, Norwell, MA, 2004. Mark Bucci, **Optimization with simulated annealing**, C/C++ ...Cited by 244 - [Web Search](#)**Cooling schedules for optimal annealing - group of 3 »**

B Hajek - Mathematics of Operations Research, 1988 - portal.acm.org

... ACM international conference on **Computer-aided design** ... probabilistic methods for **optimization**, Proceedings of ... Sampling and **Simulated Annealing**, IEEE Transactions ...Cited by 380 - [Web Search](#)**Global optimization of statistical functions with simulated annealing - group of 5 »**

WL Goffe, GD Ferrier, J Rogers - Journal of Econometrics, 1994 - decom.ufop.br

... Combinatorial **simulated annealing** has been used successfully in **computer** and circuit design ... Other global **optimization** algorithms have been introduced in recent ...Cited by 359 - [View as HTML](#) - [Web Search](#)**Optimization by simulated annealing: Quantitative studies**

S Kirkpatrick - Journal of Statistical Physics, 1984 - Springer

... **Simulated annealing** is a stochastic **optimization** procedure which is widely applicable and has been found effective in several problems arising in **computer**- ...Cited by 217 - [Web Search](#)**Optimization by Simulated Annealing: An Experimental Evaluation; Part I, Graph Partitioning - group of 2 »**

DS Johnson, CR Aragon, LA McGeoch, C Schevon - Operations Research, 1989 - JSTOR

Optimization by Simulated Annealing: An Experimental Evaluation; Part I, Graph Partitioning. ... Simulation, applications: **optimization** by **simulated annealing** ...Cited by 396 - [Web Search](#)**Optimization by Simulated Annealing: An Experimental Evaluation; Part II, Graph Coloring and Number ... - group of 3 »**

DS Johnson, CR Aragon, LA McGeoch, C Schevon - Operations Research, 1991 - JSTOR

... 1. THE GENERIC **ANNEALING ALGORITHM** Both local **optimization** and **simulated annealing** require that the problem to which they are applied be describable ...Cited by 321 - [Web Search](#)

[book] **Genetic Algorithms and Simulated Annealing**

L Davis - 1987 - Morgan Kaufmann Publishers Inc. San Francisco, CA, USA

Cited by 395 - Web Search - Library Search

... accepting: a general purpose optimization algorithm appearing superior to simulated annealing - group of 2 »

G Dueck, T Scheuer - Journal of Computational Physics, 1990 - portal.acm.org

... optimization algorithm appearing superior to simulated annealing. ... Heinz Hoffmann, Optimal annealing schedules for a ... in combinatorial optimization: Overview and ...

Cited by 275 - Web Search

Google ►

Result Page: 1 2 3 4 5 6 7 8 9 10 Next

[Google Home](#) - [About Google](#) - [About Google Scholar](#)

©2006 Google

 **PORTAL**
USPTO

Subscribe (Full Service) Register (Limited Service, Free) Login
 Search: The ACM Digital Library The Guide
 optimization simulated annealing computer

THE ACM DIGITAL LIBRARY

 [Feedback](#) [Report a problem](#) [Satisfaction survey](#)

Terms used [optimization simulated annealing computer](#)

Found 75,734 of 182,223

Sort results by relevance Save results to a Binder
 Display results expanded form Search Tips
 Open results in a new window

Try an [Advanced Search](#)
 Try this search in [The ACM Guide](#)

Results 21 - 40 of 200 Result page: [previous](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)
 Best 200 shown

Relevance scale 

21 Architectural level synthesis: Physical-aware simulated annealing optimization of gate leakage in nanoscale datapath circuits 

Saraju P. Mohanty, Ramakrishna Velagapudi, Elias Kougianos

March 2006 **Proceedings of the conference on Design, automation and test in Europe: Proceedings DATE '06**

Publisher: European Design and Automation Association

Full text available:  [pdf\(445.43 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)

For CMOS technologies below 65nm, gate oxide direct tunneling current is a major component of the total power dissipation. This paper presents a simulated annealing based algorithm for the gate leakage current reduction by simultaneous scheduling, allocation and binding during behavioral synthesis. Gate leakage current reduction is based on the use of functional units of different oxide thickness while simultaneously accounting for process variations. We present a cost function that minimizes le ...

22 Advanced tutorials: Simulation optimization: simulation optimization 

Sigurdur Ólafsson, Jumi Kim

December 2002 **Proceedings of the 34th conference on Winter simulation: exploring new frontiers**

Publisher: Winter Simulation Conference

Full text available:  [pdf\(141.19 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

Simulation optimization has received considerable attention from both simulation researchers and practitioners. In this tutorial we present a broad introduction to simulation optimization and the many techniques that have been suggested to solve simulation optimization problems. Both continuous and discrete problems are discussed, but an emphasis is placed on discrete problems and practical methods for addressing such problems.

23 Satisfiability test with synchronous simulated annealing on the Fujitsu AP1000 

 **massively-parallel multiprocessor**

Andrew Sohn, Rupak Biswas

January 1996 **Proceedings of the 10th international conference on Supercomputing**

Publisher: ACM Press

Full text available:  [pdf\(823.82 KB\)](#) Additional Information: [full citation](#), [references](#), [index terms](#)

- 24 [An approach for finding discrete variable design alternatives using a simulation optimization method](#)

 Young Hae Lee, Kyoung Jong Park, Tag Gon Kim
December 1999 **Proceedings of the 31st conference on Winter simulation: Simulation--a bridge to the future - Volume 1**
Publisher: ACM Press
Full text available:  pdf(158.35 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

- 25 [A decomposition-based simulated annealing technique for data clustering](#)

 Kien A. Hua, S. D. Lang, Wen K. Lee
May 1994 **Proceedings of the thirteenth ACM SIGACT-SIGMOD-SIGART symposium on Principles of database systems**
Publisher: ACM Press

Full text available:  pdf(1.15 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

It has been demonstrated that simulated annealing provides high-quality results for the data clustering problem. However, existing simulated annealing schemes are memory-based algorithms; they are not suited for solving large problems such as data clustering which typically are too big to fit in the memory space in its entirety. Various buffer replacement policies, assuming either temporal or spatial locality, are not useful in this case since simulated annealing is based on ...

- 26 [Session 6D: Analog synthesis: ASF: a practical simulation-based methodology for the synthesis of custom analog circuits](#)

Michael J. Krasnicki, Rodney Phelps, James R. Hellums, Mark McClung, Rob A. Rutenbar, L. Richard Carley
November 2001 **Proceedings of the 2001 IEEE/ACM international conference on Computer-aided design**
Publisher: IEEE Press

Full text available:  pdf(225.63 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper describes ASF, a novel cell-level analog synthesis framework that can size and bias a given circuit topology subject to a set of performance objectives and a manufacturing process. To manage complexity and time-to-market, SoC designs require a high level of automation and reuse. Digital methodologies are inapplicable to analog IP, which relies on tight control of low-level device and circuit properties that vary widely across manufacturing processes. This analog synthesis solution aut ...

- 27 [MAELSTROM: efficient simulation-based synthesis for custom analog cells](#)

 Michael Krasnicki, Rodney Phelps, Rob A. Rutenbar, L. Richard Carley
June 1999 **Proceedings of the 36th ACM/IEEE conference on Design automation**

Publisher: ACM Press

Full text available:  pdf(129.41 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

- 28 [Evolution strategies, evolutionary programming: papers: On the local performance of simulated annealing and the \(1+1\) evolutionary algorithm](#)

 Thomas Jansen, Ingo Wegener
July 2006 **Proceedings of the 8th annual conference on Genetic and evolutionary**

computation GECCO '06**Publisher:** ACM PressFull text available:  pdf(176.33 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Simulated annealing and the (1+1) EA, a simple evolutionary algorithm, are both general randomized search heuristics that optimize any objective function with probability converging to 1. But they use very different techniques to achieve this global convergence. The (1+1) EA applies global mutations than can reach any point in the search space in one step together with an elitist selection mechanism. Simulated annealing restricts its search to a neighborhood but employs a randomized selection sc ...

Keywords: evolutionary algorithms, local performance, mutation, run time analysis, selection, simulated annealing

29 What have we learnt from using real parallel machines to solve real problems?  G. C. FoxJanuary 1989 **Proceedings of the third conference on Hypercube concurrent computers and applications - Volume 2****Publisher:** ACM PressFull text available:  pdf(4.08 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We briefly review some key scientific and parallel processing issues in a selection of some 84 existing applications of parallel machines. We include the MIMD hypercube transputer array, BBN Butterfly, and the SIMD ICL DAP, Goodyear MPP and Connection Machine from Thinking Machines. We use a space-time analogy to classify problems and show how a division into synchronous, loosely synchronous and asynchronous problems is helpful. This classifies problems into those suitable for SIMD or MIMD ...

30 Experiments with simulated annealing  Surendra Nahar, Sartaj Sahni, Eugene ShragowitzJune 1985 **Proceedings of the 22nd ACM/IEEE conference on Design automation****Publisher:** ACM PressFull text available:  pdf(644.54 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The performance of simulated annealing is compared to that of other Monte Carlo methods for optimization. Our experiments show that these other methods often perform better than simulated annealing.

Keywords: Monte Carlo method, heuristic, optimization, simulated annealing

31 Variable-sample methods for stochastic optimization  Tito Homem-De-MelloApril 2003 **ACM Transactions on Modeling and Computer Simulation (TOMACS)**, Volume 13 Issue 2**Publisher:** ACM PressFull text available:  pdf(244.36 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this article we discuss the application of a certain class of Monte Carlo methods to stochastic optimization problems. Particularly, we study *variable-sample* techniques, in which the objective function is replaced, *at each iteration*, by a sample average approximation. We first provide general results on the *schedule* of sample sizes, under which variable-sample methods yield consistent estimators as well as bounds on the estimation error. Because the convergence analysis i ...

Keywords: Monte Carlo methods, pathwise bounds, random search, stochastic optimization

32 Cross-entropy and rare events for maximal cut and partition problems 

 Reuven Y. Rubinstein

January 2002 **ACM Transactions on Modeling and Computer Simulation (TOMACS)**,
Volume 12 Issue 1

Publisher: ACM Press

Full text available:  pdf(271.84 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We show how to solve the maximal cut and partition problems using a randomized algorithm based on the *cross-entropy* method. For the maximal cut problem, the proposed algorithm employs an auxiliary Bernoulli distribution, which transforms the original deterministic network into an associated stochastic one, called the *associated stochastic network* (ASN). Each iteration of the randomized algorithm for the ASN involves the following two phases:(1) Generation of random cuts using a mul ...

Keywords: Combinatorial optimization, cross-entropy, importance sampling, rare event simulation

33 Optimization by simulated evolution with applications to standard cell placement 

 Ralph-Michael Kling, Prithviraj Banerjee

January 1991 **Proceedings of the 27th ACM/IEEE conference on Design automation**

Publisher: ACM Press

Full text available:  pdf(793.15 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper presents a mathematical formulation of the Simulated Evolution algorithm, a novel optimization technique, followed by a thorough analysis of the associated Markovchain model. We show that the algorithm will reach a global minimum with probability one, and also introduce a novel hierarchical placement technique. Finally, we describe a Standard Cell placement program based on the new approach whose preliminary results are comparable to the best Simulated Annealing algorithms. ...

34 Simulation-based scheduling: Schedule evaluation: simulation optimization for process scheduling through simulated annealing 

Alex Cave, Saeid Nahavandi, Abbas Kouzani

December 2002 **Proceedings of the 34th conference on Winter simulation: exploring new frontiers**

Publisher: Winter Simulation Conference

Full text available:  pdf(221.41 KB) Additional Information: [full citation](#), [abstract](#), [references](#)

This paper presents a simulation optimization of a real scheduling problem in industry, simulated annealing is introduced for this purpose. Investigation is performed into the practicality of using simulated annealing to produce high quality schedules. Results on the solution quality and computational effort show the inherent properties of the simulated annealing. It is shown that when using this method, high quality schedules can be produced within reasonable time constraints.

35 Metaheuristics in combinatorial optimization: Overview and conceptual comparison 

Christian Blum, Andrea Roli

September 2003 **ACM Computing Surveys (CSUR)**, Volume 35 Issue 3



Publisher: ACM Press

Full text available: [pdf\(431.84 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The field of metaheuristics for the application to combinatorial optimization problems is a rapidly growing field of research. This is due to the importance of combinatorial optimization problems for the scientific as well as the industrial world. We give a survey of the nowadays most important metaheuristics from a conceptual point of view. We outline the different components and concepts that are used in the different metaheuristics in order to analyze their similarities and differences. Two v ...

Keywords: Metaheuristics, combinatorial optimization, diversification., intensification

36 Simulation optimization with the linear move and exchange move optimization



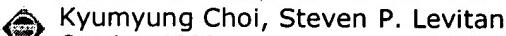
Marcos Ribeiro Pereira Barreto, Leonardo Chwif, Tillal Eldabi, Ray J. Paul

December 1999 **Proceedings of the 31st conference on Winter simulation: Simulation--a bridge to the future - Volume 1**

Publisher: ACM Press

Full text available: [pdf\(89.23 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

37 A flexible datapath allocation method for architectural synthesis



October 1999 **ACM Transactions on Design Automation of Electronic Systems (TODAES)**, Volume 4 Issue 4

Publisher: ACM Press

Full text available: [pdf\(195.48 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present a robust datapath allocation method that is flexible enough to handle constraints imposed by a variety of target architectures. Key features of this method are its ability to handle accurate modeling of datapath units and the simultaneous optimization of direct objective functions. The proposed method consists of a new binding model construction scheme and an optimization technique based on simulated annealing. To illustrate the flexibility of this method, two datapath allocation ...

Keywords: allocation and binding, high-level synthesis

38 Algorithm 744: a stochastic algorithm for global optimization with constraints



June 1995 **ACM Transactions on Mathematical Software (TOMS)**, Volume 21 Issue 2

Publisher: ACM Press

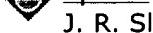
Full text available: [pdf\(1.30 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#), [review](#)

A stochastic algorithm is presented for finding the global optimum of a function of n variables subject to general constraints. The algorithm is intended for moderate values of n, but it can accommodate objective and constraint functions that are discontinuous and can take advantage of parallel processors. The performance of this algorithm is compared to that of the Nelder-Mead Simplex algorithm and a Simulated Annealing algorithm on a variety of nonlinear ...

Keywords: constrained optimization, global optimization, stochastic optimization, test

functions

39 Enhanced simulated annealing for automatic reconfiguration of multiprocessors in space



J. R. Slagle, A. Bose, P. Busalacchi, C. Wee

June 1989 **Proceedings of the 2nd international conference on Industrial and engineering applications of artificial intelligence and expert systems - Volume 1 IEA/AIE '89**

Publisher: ACM Press

Full text available: [pdf\(713.91 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper describes our recent results in developing enhanced simulated annealing algorithms using a LISP environment. The application is to use simulated annealing for automatic reconfiguration of multiprocessors in space. Our approach to solving this problem involves a combination of object-oriented programming, search strategies, knowledge based reasoning, and an advanced reconfiguration algorithm. The application was developed and is being enhanced on a LISP workstation (Xerox Dandelio ...)

40 VLSI cell placement techniques



K. Shahookar, P. Mazumder

June 1991 **ACM Computing Surveys (CSUR)**, Volume 23 Issue 2

Publisher: ACM Press

Full text available: [pdf\(5.28 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

VLSI cell placement problem is known to be NP complete. A wide repertoire of heuristic algorithms exists in the literature for efficiently arranging the logic cells on a VLSI chip. The objective of this paper is to present a comprehensive survey of the various cell placement techniques, with emphasis on standard cell and macro placement. Five major algorithms for placement are discussed: simulated annealing, force-directed placement, min-cut placement, placement by numerical optimization, a ...

Keywords: VLSI, floor planning, force-directed placement, gate array, genetic algorithm, integrated circuits, layout, min-cut, physical design, placement, simulated annealing, standard cell

Results 21 - 40 of 200

Result page: [previous](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2006 ACM, Inc.

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads: [Adobe Acrobat](#) [QuickTime](#) [Windows Media Player](#) [Real Player](#)